

TRANSMITTAL LETTER TO THE UNITED STATES  
DESIGNATED/ELECTED OFFICE (DO/EO/US)  
CONCERNING A SUBMISSION UNDER 35 U.S.C. 371

INTERNATIONAL APPLICATION NO.  
PCT/CA03/00528INTERNATIONAL FILING DATE  
11 April 2003PRIORITY DATE CLAIMED  
12 April 2002

## TITLE OF INVENTION

Antifreeze Proteins for Inhibition of Clathrate Hydrate Formation and Reformation

## APPLICANT(S) FOR DO/EO/US

WALKER, Virginia K., RIPMEESTER, John A. and ZENG, Huang

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

1.  This is a **FIRST** submission of items concerning a submission under 35 U.S.C. 371.
2.  This is a **SECOND** or **SUBSEQUENT** submission of items concerning a submission under 35 U.S.C. 371.
3.  This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (24) indicated below.
4.  The US has been elected (Article 31).
5.  A copy of the International Application as filed (35 U.S.C. 371 (c) (2))
  - a.  is attached hereto (required only if not communicated by the International Bureau).
  - b.  has been communicated by the International Bureau.
  - c.  is not required, as the application was filed in the United States Receiving Office (RO/US).
6.  An English language translation of the International Application as filed (35 U.S.C. 371(c)(2))
  - a.  is attached hereto.
  - b.  has been previously submitted under 35 U.S.C. 154(d)(4).
7.  Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371 (c)(3))
  - a.  are attached hereto (required only if not communicated by the International Bureau).
  - b.  have been communicated by the International Bureau.
  - c.  have not been made; however, the time limit for making such amendments has NOT expired.
  - d.  have not been made and will not be made.
8.  An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).
9.  An oath or declaration of the inventor(s) (35 U.S.C. 371 (c)(4)).
10.  An English language translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371 (c)(5)).
11.  A copy of the International Preliminary Examination Report (PCT/IPEA/409).
12.  A copy of the International Search Report (PCT/ISA/210).

## Items 13 to 23 below concern document(s) or information included:

13.  An Information Disclosure Statement under 37 CFR 1.97 and 1.98.
14.  An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.
15.  A **FIRST** preliminary amendment.
16.  A **SECOND** or **SUBSEQUENT** preliminary amendment.
17.  A substitute specification.
18.  A power of attorney and/or change of address letter.
19.  A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 37 CFR 1.821 - 1.825.
20.  A second copy of the published International Application under 35 U.S.C. 154(d)(4).
21.  A second copy of the English language translation of the International Application under 35 U.S.C. 154(d)(4).
22.  Express Mail Label No. EV452328693US
23.  Other items or information:
  - 1) Courtesy copy of the International Application;
  - 2) An unexecuted oath or declaration of the inventor(s) (35 U.S.C.371 (c)(4));
  - 3) Return post card.

U.S. APPLICATION NO <b>10510554</b>	INTERNATIONAL APPLICATION NO. <b>PCT/CA03/00528</b>	ATTORNEY'S DOCKET NUMBER <b>AF-0022</b>
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24. The following fees are submitted:

**BASIC NATIONAL FEE (37 CFR 1.492(a)(1)-(5)) :**

<input type="checkbox"/> Neither international preliminary examination fee (37 CFR 1.482) nor international search fee (37 CFR 1.445(a)(2)) paid to USPTO and International Search Report not prepared by the EPO or JPO .....	\$1080.00
<input checked="" type="checkbox"/> International preliminary examination fee (37 CFR 1.482) not paid to USPTO but International Search Report prepared by the EPO or JPO .....	\$920.00
<input type="checkbox"/> International preliminary examination fee (37 CFR 1.482) not paid to USPTO but international search fee (37 CFR 1.445(a)(2)) paid to USPTO .....	\$770.00
<input type="checkbox"/> International preliminary examination fee (37 CFR 1.482) paid to USPTO but all claims did not satisfy provisions of PCT Article 33(1)-(4) .....	\$730.00
<input type="checkbox"/> International preliminary examination fee (37 CFR 1.482) paid to USPTO and all claims satisfied provisions of PCT Article 33(1)-(4) .....	\$100.00

**CALCULATIONS PTO USE ONLY**

**ENTER APPROPRIATE BASIC FEE AMOUNT =**

**\$920.00**

Surcharge of **\$130.00** for furnishing the oath or declaration later than  20  30 months from the earliest claimed priority date (37 CFR 1.492(e)).

**\$0.00**

CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE	
Total claims	23 - 20 =	3	x \$18.00	<b>\$54.00</b>
Independent claims	5 - 3 =	2	x \$86.00	<b>\$172.00</b>
Multiple Dependent Claims (check if applicable).			<input checked="" type="checkbox"/>	<b>\$290.00</b>
<b>TOTAL OF ABOVE CALCULATIONS =</b>				<b>\$1,436.00</b>
<input checked="" type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. The fees indicated above are reduced by 1/2.				<b>\$718.00</b>
<b>SUBTOTAL =</b>				<b>\$718.00</b>
Processing fee of <b>\$130.00</b> for furnishing the English translation later than <input type="checkbox"/> 20 <input type="checkbox"/> 30 months from the earliest claimed priority date (37 CFR 1.492(f)).			+ \$0.00	<b>\$0.00</b>
<b>TOTAL NATIONAL FEE =</b>				<b>\$718.00</b>
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31) (check if applicable).		<input type="checkbox"/>		<b>\$0.00</b>
<b>TOTAL FEES ENCLOSED =</b>				<b>\$718.00</b>
				<b>Amount to be: \$ refunded charged \$</b>

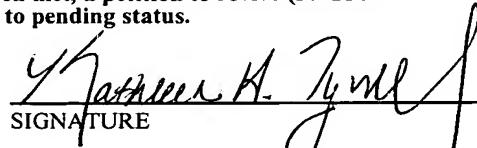
- A check in the amount of \_\_\_\_\_ to cover the above fees is enclosed.
- Please charge my Deposit Account No. \_\_\_\_\_ in the amount of \_\_\_\_\_ to cover the above fees.
- The Director is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 50-1619
- Fees are to be charged to a credit card. **WARNING: Information on this form may become public. Credit card information should not be included on this form.** Provide credit card information and authorization on PTO-2038.

**NOTE: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the International Application to pending status.**

SEND ALL CORRESPONDENCE TO:

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 SIGNATURE

Kathleen A. Tyrrell

NAME

38,350

REGISTRATION NUMBER

October 7, 2004

DATE

10/510557

DT04 Rec'd PCT/PTO 07 OCT 2004

AF-0022

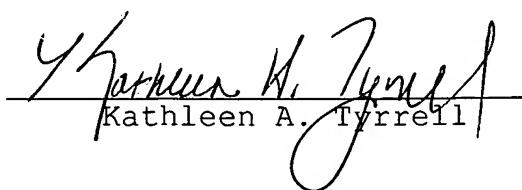
**CERTIFICATE OF EXPRESS MAILING**

"Express Mail" Label No. **EV452328693US**

Date of Deposit: October 7, 2004

I hereby certify that this paper is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 C.F.A. 1.10 on the date indicated above and is addressed to the Mail Stop PCT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

- 1) Transmittal Letter (in duplicate);
- 2) PCT International Application;
- 3) Unexecuted Declaration and Power of Attorney;
- 4) Statement to Support Filing and Submission in Accordance with 37 CFR §1.821-1.825;
- 5) A computer-readable form of the sequence listing;
- 6) Information Disclosure Statement/Form 1449 with attachments;
- 7) USPTO Credit Card Payment Form authorizing payment in the amount of \$718.00 for filing fees;
- 8) Return Postcard.

  
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Kathleen A. Tyrrell